

ABSTRACT OF THE DISCLOSURE

A communication device configured to assign a data packet to a memory bank of a memory device is provided. The communication device includes an input port for receiving the data packet, a look-ahead logic module, a pointer assignment module, and an output port. The look-ahead logic module is configured to select an address of the memory bank of the memory device by overriding an address mapping scheme that permits successive data packets to be assigned to the same memory bank. The pointer assignment module is configured to assign a pointer to the data packet based upon the memory bank determined by the look-ahead logic module. In addition, the output port is configured to transfer the data packet to the memory bank of the memory device.

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